

| Version Status Interaction Descriptions | | | |
|---|--|--|---|
| # | Interaction Name | Type | Description |
| | | NPAC SMS Internal | <ol style="list-style-type: none"> 1. NPAC SMS automatically sets a pending Subscription Version to canceledcancel after authorization for the transfer of service has not been received from the new Service Provider within a tunable timeframe. 2. NPAC SMS automatically sets a pending Subscription Version to canceledcancel if an activation request is not received a tunable amount of time after new Service Provider due date. |
| 7 | Pending to Cancel Pending | NPAC Operations Interface - NPAC Personnel | User cancels a Subscription Version with a status of pending that has been created/concurred by both Service Providers. |
| | | SOA to NPAC SMS Interface | Service Provider User sends a cancellation request for a Subscription Version with a status of pending that has been concurred by the other Service Provider. |
| 8 | Cancel Pending to CanceledCancel | NPAC SMS Internal | NPAC SMS automatically sets a cancel pending Subscription Version to canceled after receiving cancel pending acknowledgment from the concurring Service Provider, or the final cancellation concurrence window has expired without cancel concurrence from the old Service Provider. |
| 9 | Creation - Set to Conflict | NPAC Operations Interface - NPAC Personnel | User creates a Subscription Version for the old Service Provider and does not provide authorization for the transfer of service. |
| | | SOA to NPAC SMS Interface - Old Service Provider | User sends an old Service Provider Subscription Version creation request and does not provide authorization for the transfer of service. |
| 10 | Creation - Set to Pending | NPAC Operations Interface - NPAC Personnel | User creates a Subscription Version for either the new or old Service Provider. If the create is for the old Service Provider and authorization for the transfer of service is not provided, refer to # 9, <i>Creation - Set to Conflict, NPAC Operations Interface</i> . |
| | | SOA to NPAC SMS Interface | User sends a Subscription Version creation request for either the new or old Service Provider. If the create is for the old Service Provider, and authorization for the transfer of service is not provided, refer to # 9, <i>Creation - Set to Conflict, SOA to NPAC SMS Interface</i> . |
| 11 | Disconnect Pending to Sending | NPAC SMS Internal | NPAC SMS automatically sets a deferred disconnect pending Subscription Version to sending after the effective release date is reached. |
| 12 | Sending to Disconnect Pending | NPAC SMS Internal | NPAC SMS automatically sets a Subscription Version from sending to disconnect pending when the broadcast of the disconnect pending fails completely. |
| 13 | Pending to Sending | NPAC Operations Interface - NPAC Personnel | User activates a pending Subscription Version for a Subscription Version with a new Service Provider due date less than or equal to today. |
| | | SOA to NPAC SMS Interface - New Service Provider | New Service Provider User sends an activation message for a pending Subscription Version for a Subscription Version with a new Service Provider due date less than or equal to today. |
| 14 | Sending to Failed | NPAC SMS Internal | NPAC SMS automatically sets a Subscription Version from sending to failed after all Local SMSs fail Subscription Version activation after the tunable retry period expires. |
| 15 | Failed to Sending | NPAC Operations Interface - NPAC Personnel | User re-sends a failed Subscription Version. |

| Version Status Interaction Descriptions | | | |
|---|------------------------------|--|--|
| # | Interaction Name | Type | Description |
| 16 | Partially Failed to Sending | NPAC Operations Interface - NPAC Personnel | User re-sends a partial failure Subscription Version. |
| 17 | Sending to Partially Failed | NPAC SMS Internal | NPAC SMS automatically sets a Subscription Version from sending to partial failure after one or more, but not all, of the Local SMSs fail the Subscription Version activation after the tunable retry period expires. |
| 18 | Sending to Old | NPAC SMS Internal | NPAC SMS automatically sets a sending Subscription Version to old after a disconnect or "porting to original" port to all Local SMS successfully completes. |
| 19 | Sending to Active | NPAC SMS Internal | <ol style="list-style-type: none"> 1. NPAC SMS automatically sets a sending Subscription Version to active after the Subscription Version activation is successful in all of the Local SMSs. 2. NPAC SMS automatically sets a sending Subscription Version to active after the Subscription Version modification is successfully broadcast to any of the Local SMSs. |
| 20 | Active to Sending | NPAC Operations Interface - NPAC Personnel | User disconnects an active Subscription Version and does not supply an effective release date, or User modifies an active Subscription Version. |
| | | SOA to NPAC SMS Interface - Current Service Provider | User sends a disconnect request for an active Subscription Version and does not supply an effective release date, or User modifies an active Subscription Version. |
| 21 | Active to Old | NPAC SMS Internal | NPAC SMS automatically sets the currently active Subscription Version to old once a Subscription Version activation or disconnect is successful in all Local SMSs. |
| 22 | Disconnect Pending to Active | NPAC Operations Interface - NPAC Personnel | User cancels a Subscription Version with a disconnect pending status. |
| | | SOA to NPAC SMS Interface - New Service Provider | User sends a cancellation request for a disconnect pending Subscription Version. |
| 23 | Active to Disconnect Pending | NPAC Operations Interface - NPAC Personnel | User disconnects an active Subscription Version and supplies a future effective release date. |
| | | SOA to NPAC SMS Interface - Current Service Provider | User sends a disconnect request for an active Subscription Version and supplies a future effective release date. |

Appendix A. Errors

A

CMISE Primitive Errors

The following exhibit contains the valid errors associated with CMISE confirmed primitives used in the interoperable interfaces definitions. The situations under which these errors occur are documented in the message flow diagrams in Chapter 6.

Exhibit 95. Valid Errors Associated with CMISE-Confirmed Primitives Used by the NPAC SMS

| CMISE PRIMITIVE ERRORS | |
|------------------------|---|
| CMISE Primitive | Errors |
| M-EVENT-REPORT | invalidArgumentValue, noSuchArgument, noSuchObjectClass, noSuchObjectInstance, processingFailure |
| M-GET | accessDenied, classInstanceConflict, complexityLimitation, getListError, invalidFilter, invalidScope, noSuchObjectClass, noSuchObjectInstance, processingFailure, resourceLimitation , syncNotSupported |
| M-SET | accessDenied, classInstanceConflict, complexityLimitation, invalidAttributeValue, invalidFilter, invalidOperation , invalidOperator , invalidScope, noSuchAttribute, noSuchObjectClass, noSuchObjectInstance, processingFailure, syncNotSupported |
| M-ACTION | accessDenied, classInstanceConflict, complexityLimitation, invalidArgumentValue, invalidFilter, invalidScope, noSuchAction, noSuchArgument, noSuchObjectClass, noSuchObjectInstance, processingFailure, syncNotSupported |
| M-CREATE | accessDenied, classInstanceConflict, duplicateManaged-ObjectInstance, invalidAttributeValue, invalidObjectInstance, missingAttributeValue, noSuchAttribute, noSuchObjectClass, noSuchObjectInstance, processingFailure |
| M-DELETE | accessDenied, classInstanceConflict, complexityLimitation, invalidFilter, invalidScope, noSuchObjectClass, noSuchObjectInstance, processingFailure, syncNotSupported |

CMISE Primitive Error Descriptions

accessDenied

The service provider does not have the authorization to do this operation.

Examples:

- The service provider is not authorized to perform this type of operation.
- The service provider is not the old or new service provider for the subscription version.
- The modify of the subscription version will cause a mass update.

- The version selected for a disconnect is not active.

duplicateManagedObjectInstance

For create operations, the requested object already exists.

Examples:

- Pending subscription version, NPA-NXX or LRN already exist on NPAC SMS.

classInstanceConflict

The object specified is not a member of the specified class.

complexityLimitation

A parameter was too complex to complete the operation.

invalidArgumentValue

A specified argument is not valid.

Examples:

- An argument value does not pass validation for an action or event report.
- A required parameter is missing for an action or event report.
- An argument value does not exist.

invalidAttributeValue

A specified attribute is not valid.

invalidFilter

A filter specified is not valid.

invalidScope

The scope specified is not valid.

noSuchAction

A specified action is not recognized.

noSuchArgument

A specified argument is not recognized.

noSuchAttribute

A specified attribute is not recognized.

noSuchObjectClass

A specified object class is not recognized.

noSuchObjectInstance

The requested object does not exist.

Examples:

- A query fails based on the search criteria.
- The referenced object (subscription version, NPA-NXX, LRN, etc.) does not exist.

processingFailure

A general failure has occurred in processing the operation or notification. A text string is needed to qualify the error message.

Exhibit 96. processingFailure Errors

| processingFailure Errors | | |
|--------------------------|---------------------------------|--|
| Error ID | Description | |
| 0 | lnpSpecificInfo (GraphicString) | Number of records in query response, <#records>, exceeds the number of records that can be returned (<tunable>). |

resourceLimitation

The operation was not processed due to a resource limitation.

synchronizationNotSupported

The type of synchronization specified is not supported.

CMIP Error Mapping to the External Design Specification

The following exhibit provides a mapping of CMIP errors to the errors defined in the External Design Specification. Errors reflected are defined as follows:

accessDenied

Implies the service provider cannot perform the given task.

duplicateObjectInstance

The object already exists.

invalidArgumentValue

Represents invalidArgumentValue for an M-ACTION response, and invalidAttributeValue for M-CREATE and M-SET responses.

noSuchObjectInstance

The requested object does not exist.

processingFailure

The processing failed for the reason given.

Exhibit 97 CMIP Error Mapping to the External Design Specification

| CMIP Error | Functional Area | Message Text |
|----------------------|---------------------------------|--|
| invalidArgumentValue | Subscription Version Management | Required data for TN field(s) missing. |
| invalidArgumentValue | Subscription Version Management | Required due date entry missing from the subscription version. |
| invalidArgumentValue | Subscription Version Management | Required Customer Disconnect Date missing from the subscription version. |
| invalidArgumentValue | Subscription Version Management | Required New Service Provider ID missing from the subscription version. |
| invalidArgumentValue | Subscription Version Management | Required Old Service Provider ID missing from the subscription version. |
| invalidArgumentValue | Subscription Version Management | Required LRN missing. |

| C-MIP Error | Functional Area | Message Text |
|-----------------------|---------------------------------|--|
| invalidArgument Value | Subscription Version Management | Required CLASS DPC missing. |
| invalidArgument Value | Subscription Version Management | Required CLASS SSN missing. |
| invalidArgument Value | Subscription Version Management | Required CNAM DPC missing. |
| invalidArgument Value | Subscription Version Management | Required CNAM SSN missing. |
| invalidArgument Value | Subscription Version Management | Required ISVM DPC missing. |
| invalidArgument Value | Subscription Version Management | Required ISVM SSN missing. |
| invalidArgument Value | Subscription Version Management | Required LIDB DPC missing. |
| invalidArgument Value | Subscription Version Management | Required LIDB SSN missing. |
| invalidArgument Value | Network Management | Required value for Date is missing from Network Data. |
| invalidArgument Value | Network Management | Required value for Time is missing from Network Data. |
| invalidArgument Value | NPAC Customer Management | Required value for NPAC Customer Type is missing from NPAC Customer. |
| invalidArgument Value | NPAC Customer Management | Required value for Contact Name is missing from NPAC Customer. |
| invalidArgument Value | NPAC Customer Management | Required value for Address Line 1 is missing from NPAC Customer. |
| invalidArgument Value | NPAC Customer Management | Required value for NPAC Customer City is missing from NPAC Customer. |
| invalidArgument Value | NPAC Customer Management | Required value for Repair Center City is missing from NPAC Customer. |
| invalidArgument Value | NPAC Customer Management | Required value for NPAC Customer State is missing from NPAC Customer. |
| invalidArgument Value | NPAC Customer Management | Required value for Repair Center State is missing from NPAC Customer. |
| invalidArgument Value | NPAC Customer Management | Required value for NPAC Customer Zip Code is missing from NPAC Customer. |
| invalidArgument Value | NPAC Customer Management | Required value for Repair Center Zip Code is missing from NPAC Customer. |
| invalidArgument Value | NPAC Customer Management | Required value for Pager is missing from NPAC Customer. |
| invalidArgument Value | NPAC Customer Management | Required value for Pager PIN is missing from NPAC Customer. |
| invalidArgument Value | NPAC Customer Management | Required value for Fax is missing from NPAC Customer. |

| C-MIP Error | Functional Area | Message Text |
|-----------------------|---------------------------------|--|
| invalidArgument Value | NPAC Customer Management | Required value for Email is missing from NPAC Customer. |
| invalidArgument Value | NPAC Customer Management | Required value for NSAP is missing from NPAC Customer. |
| invalidArgument Value | NPAC Customer Management | Required value for TSAP is missing from NPAC Customer. |
| invalidArgument Value | NPAC Customer Management | Required value for SSAP is missing from NPAC Customer. |
| invalidArgument Value | NPAC Customer Management | Required value for PSAP is missing from NPAC Customer. |
| invalidArgument Value | NPAC Customer Management | Required value for IP is missing from NPAC Customer. |
| invalidArgument Value | Subscription Version Management | Invalid value for CLASS DPC entered. |
| invalidArgument Value | Subscription Version Management | Invalid value for CLASS SSN entered. |
| invalidArgument Value | Subscription Version Management | Invalid value for CNAM DPC entered. |
| invalidArgument Value | Subscription Version Management | Invalid value for CNAM SSN entered. |
| invalidArgument Value | Subscription Version Management | Invalid value for ISVM DPC entered. |
| invalidArgument Value | Subscription Version Management | Invalid value for ISVM SSN entered. |
| invalidArgument Value | Subscription Version Management | Invalid value for LIDB DPC entered. |
| invalidArgument Value | Subscription Version Management | Invalid value for LIDB SSN entered. |
| invalidArgument Value | Subscription Version Management | TN NPA contains invalid data. |
| invalidArgument Value | Subscription Version Management | TN NXX contains invalid data. |
| invalidArgument Value | Subscription Version Management | TN extension field contains invalid data. |
| invalidArgument Value | Subscription Version Management | Month field contains invalid data. |
| invalidArgument Value | Subscription Version Management | Day field contains invalid data. |
| invalidArgument Value | Subscription Version Management | Year field contains invalid data. |
| invalidArgument Value | Subscription Version Management | TN range 'through' field (ending extension value) contains invalid data. |
| invalidArgument Value | Subscription Version Management | The entered due date must be greater than or equal to today's date. |

| CMIP Error | Functional Area | Message Text |
|-----------------------|---------------------------------|--|
| invalidArgument Value | Subscription Version Management | Billing Service Provider ID contains invalid data. |
| invalidArgument Value | Subscription Version Management | End-User Location Value contains invalid data. |
| invalidArgument Value | Subscription Version Management | End-User Location Type contains invalid data. |
| invalidArgument Value | NPAC Customer Management | Invalid value for Time entered. |
| invalidArgument Value | NPAC Customer Management | Invalid value for NPAC Customer Name entered. |
| invalidArgument Value | NPAC Customer Management | Invalid value for NPAC Customer Id entered. |
| invalidArgument Value | Subscription Version Management | Invalid value for LRN entered. |
| invalidArgument Value | NPAC Customer Management | Invalid value for NPAC Customer Type entered. |
| invalidArgument Value | NPAC Customer Management | Invalid value for Allowable Functions entered. |
| invalidArgument Value | NPAC Customer Management | Invalid value for Download entered. |
| invalidArgument Value | NPAC Customer Management | Invalid value for Contact Name entered. |
| invalidArgument Value | NPAC Customer Management | Invalid value for Address Line 1 entered. |
| invalidArgument Value | NPAC Customer Management | Invalid value for Address Line 2 entered. |
| invalidArgument Value | NPAC Customer Management | Invalid value for City entered. |
| invalidArgument Value | NPAC Customer Management | Invalid value for State entered. |
| invalidArgument Value | NPAC Customer Management | Invalid value for Zip Code entered. |
| invalidArgument Value | NPAC Customer Management | Invalid value for Pager entered. |
| invalidArgument Value | NPAC Customer Management | Invalid value for Pager PIN entered. |
| invalidArgument Value | NPAC Customer Management | Invalid value for Fax entered. |
| invalidArgument Value | NPAC Customer Management | Invalid value for Email entered. |
| invalidArgument Value | NPAC Customer Management | Invalid value for NSAP entered. |
| invalidArgument Value | NPAC Customer Management | Invalid value for TSAP entered. |

| CMP Error | Functional Area | Message Text |
|--------------------------|---------------------------------|--|
| invalidArgument Value | NPAC Customer Management | Invalid value for SSAP entered. |
| invalidArgument Value | NPAC Customer Management | Invalid value for PSAP entered. |
| invalidArgument Value | NPAC Customer Management | Invalid value for IP entered. |
| duplicateObject Instance | Network Data Management | Item being added already exists in the database. |
| accessDenied | Network Data Management | Subscriptions in either partial failed or sending state are associated with the change. Change/Delete is denied. |
| invalidArgument Value | Network Data Management | GTT data is not equivalent across TN range specified. Modify the TN range. |
| duplicateObject Instance | NPAC Customer Management | Item being added already exists in the database. |
| accessDenied | NPAC Customer Management | One or more subscriptions will be affected by change. Change is denied. |
| invalidArgument Value | NPAC Customer Management | The NPAC Customer Id cannot be modified. |
| noSuchObject Instance | NPAC Customer Management | The NPAC Customer being modified does not exist in the database. |
| noSuchObject Instance | NPAC Customer Management | The NPAC Customer being deleted does not exist in the database, or has already been deleted. |
| invalidArgument Value | Subscription Version Management | The NPA-NXX of the TN to be ported does not exist in the NPAC SMS system. |
| invalidArgument Value | Subscription Version Management | Service Provider ID does not exist in the NPAC SMS system. |
| accessDenied | Subscription Version Management | The Service Provider issuing this subscription version request is not the Service Provider identified as the New Service Provider ID or the Old Service Provider ID on the subscription version. |
| duplicateObject Instance | Subscription Version Management | A pending subscription version with authorization from this Service Provider already exists. |
| invalidArgument Value | Subscription Version Management | The entered LRN is not associated with the New Service Provider in the NPAC SMS system. |
| invalidArgument Value | Subscription Version Management | The Old Service Provider ID in the subscription version does not match the current Service Provider ID on an existing active subscription version for this TN. |
| invalidArgument Value | Subscription Version Management | The New Service Provider ID in the subscription version to be created does not match the new Service Provider ID in an existing pending subscription version for this TN. |
| invalidArgument Value | Subscription Version Management | The Old Service Provider ID in the subscription version to be created does not match the Old Service Provider ID in an existing pending subscription version for this TN. |
| accessDenied | Subscription Version Management | Releasing a subscription version for an Intra-Service Provider port does not apply. |
| invalidArgument | Subscription Version | The Old Service Provider ID must match the New Service Provider |

| CNMP Error | Functional Area | Message Text |
|-----------------------|---------------------------------|---|
| Value | Management | ID for an Intra-Service Port. |
| invalidArgument Value | Subscription Version Management | The New and Old Service Provider Due Dates must match. |
| accessDenied | Subscription Version Management | An active subscription version must exist for an Intra-SP port. |
| accessDenied | Subscription Version Management | A subscription version with sending status cannot be modified. |
| accessDenied | Subscription Version Management | A subscription version with failed status cannot be modified. |
| accessDenied | Subscription Version Management | A subscription version with partial failure status cannot be modified. |
| accessDenied | Subscription Version Management | A subscription version with canceled status cannot be modified. |
| accessDenied | Subscription Version Management | A subscription version with old status cannot be modified. |
| accessDenied | Subscription Version Management | A subscription version with disconnect pending status cannot be modified. |
| accessDenied | Subscription Version Management | A subscription version with cancel pending status cannot be modified. |
| accessDenied | Subscription Version Management | A subscription version must be in pending status to be activated. |
| invalidArgument Value | Subscription Version Management | The Old Service Provider Id is not equal to the New Service Provider ID on the active subscription version, as required for an Intra-Service Provider port. |
| accessDenied | Subscription Version Management | The Service Provider originating the modification request is not the current Service Provider. |
| accessDenied | Subscription Version Management | The subscription version cannot be put in conflict because its current status is not pending or cancel pending. |
| accessDenied | Subscription Version Management | The subscription version cannot be set to pending because its current status is not conflict. |
| accessDenied | Subscription Version Management | The subscription version cannot be disconnected because there is no current subscription version in active status. |
| accessDenied | Subscription Version Management | This active subscription version cannot be disconnected until a sending subscription version successfully completes. |
| accessDenied | Subscription Version Management | This active subscription version cannot be disconnected until a failed or partial failure subscription version is re-sent and successfully completes. |
| accessDenied | Subscription Version Management | The subscription version cannot be canceled because its current status is not pending, conflict or disconnect pending. |
| accessDenied | Subscription Version Management | Active subscription version may not be modified because a related subscription version for this TN has been activated. |
| accessDenied | Subscription Version Management | Pending subscription version may not be activated until a related subscription version in sending status becomes active. |
| accessDenied | Subscription Version | Deferred disconnect request is not allowed because a pending |

| CMIP Error | Functional Area | Message Text |
|-----------------------|---------------------------------|---|
| | Management | subscription version exists for this TN. |
| accessDenied | Subscription Version Management | This subscription version may not be activated because authorization for transfer of service has not been received from both SPs. |
| accessDenied | Subscription Version Management | This immediate disconnect request is denied because a pending subscription version for the TN exists, and the Old Service Provider has authorized transfer of service for the pending subscription version. |
| invalidArgument Value | Audit Administration | Invalid date entered. |
| invalidArgument Value | Audit Administration | Invalid time entered. |
| invalidArgument Value | Audit Administration | Audit Profile name too long. |
| invalidArgument Value | Audit Administration | Invalid TN data entered. |
| invalidArgument Value | Audit Administration | Audit Profile name is not unique. |

Exhibit 98 CMIP Warning Mapping to the External Design Specification

| CMIP Error | Functional Area | Message Text |
|-----------------------|---------------------------------|---|
| invalidArgument Value | Subscription Version Management | The entered due date differs from the due date entered by the other Service Provider. |
| invalidArgument Value | Audit Administration | NPA does not exist in the NPAC SMS data. |
| invalidArgument Value | Audit Administration | NPA-NXX combination does not exist in the NPAC SMS data. |
| noSuchObject Instance | Audit Administration | No audits match the entered criteria. |

Exhibit 99 CMIP Informational Mapping to the External Design Specification

| CMIP Error | Functional Area | Message Text |
|-----------------------|--------------------------|---|
| noSuchObject Instance | Network Data Management | No match found in the database for the search criteria. |
| noSuchObject Instance | NPAC Customer Management | No match found in the database for the search criteria. |
| processingFailure | NPAC Customer Management | <x> Subscriptions found: exceed maximum query limit. |
| noSuchObject Instance | NPAC Customer Management | No subscription versions found for the given input search criteria. |
| noSuchObject | Subscription Version | No subscription versions found for the given input search criteria. |

| CNIP Error | Functional Area | Message Text |
|-----------------------|---------------------------------|---|
| Instance | Management | |
| processingFailure | Subscription Version Management | Subscriptions found exceed maximum query limit. |
| invalidArgument Value | Audit Administration | No TNs found within the range entered. |

North American Numbering Council (NANC)

Functional Requirements Specification

Number Portability Administration Center (NPAC) Service Management System (SMS)

Version 1.10

May 5~~April 7~~, 1997

Related Publications

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0. Preface

This section describes the organization and typographical conventions used within the document.

0.1 Document Structure

This document is organized into sections as defined below:

| | |
|-------------------|---|
| Preface | This section describes the document structure, conventions, and references used to develop this document. |
| Section 1 | Introduction - This section introduces the project and describes its scope and objectives, constraints, associated assumptions, and related references. |
| Section 2 | Business Process Flows - This section provides the high level processing flows for the NPAC SMS. |
| Section 3 | NPAC Data Administration - This section provides the high level functional requirements related to the NPAC SMS data relationships. |
| Section 4 | Service Provider Data Administration - This section contains the functional requirements for managing service provider information on the NPAC SMS. |
| Section 5 | Subscription Administration - This section contains the functional requirements associated with managing service provider subscriptions for ported numbers on the NPAC SMS. |
| Section 6 | NPAC SMS Interfaces - This section contains the functional requirements associated with the NPAC SMS external interfaces. |
| Section 7 | Security - This section contains the functional requirements for the NPAC SMS system security. |
| Section 8 | Audit Administration - This section contains the functional requirements for NPAC SMS audit administration. |
| Section 9 | Reports - This section contains the functional requirements for NPAC SMS reporting capabilities. |
| Section 10 | Performance and Reliability - This section contains the functional requirements for NPAC SMS system performance and reliability. |
| Section 11 | Billing - This section contains the functional requirements for NPAC SMS usage recording for usage billing. |

| | |
|-------------------|---|
| Appendix A | This section contains the flow diagrams depicting the NPAC SMS process flows. |
| Appendix B | Glossary - This section provides a description of all acronyms and terms used in this document. |
| Appendix C | System Tunables - This section provides a list of all system tunables and their default values. |

0.2 Abbreviations and Notations

To uniquely identify requirements, this document follows a naming convention where the first character is always a letter denoting whether the item is an assumption (A), a constraint (C) or a requirement (R).

In order to identify all NPAC SMS functional requirements this document incorporates information from three sources: the Illinois NPAC SMS RFP, Lockheed Martin's response to the RFP and requirements definition activities performed with the Illinois Number Portability SMS Subcommittee.

Illinois number of requirements has been adopted for the initial release of the NANC document. In Illinois as requirements were deleted the requirement number and an indication of its deletion were left in the document for tracking purposes. NANC has chosen to leave these deleted requirements in this document for the initial release of the document. Further explanation of the numbering scheme follows.

If the second character is the letter "N", the item is a requirement, assumption or a constraint that was stated in the narrative portion of the RFP and not assigned a number. The number following this character identifies the item's section in the RFP/requirements document.

If the second character is the letter "X", the item is a requirement, assumption or a constraint that was added upon award, and not in the RFP. These items represent clarifications or enhancements to the RFP. The number following this character identifies the item's section in the RFP/requirements document.

If the second character is the letter "R", the item is a requirement, assumption or a constraint that was identified during requirements analysis and verification activities subsequent to award. These items represent clarifications or enhancements to the RFP. The number following this character identifies the item's section in the RFP/requirements document.

The following labels are used to identify assumptions, constraints, and requirements within the document. Each label begins with the letter A, C, or R followed either by a number or letter illustrated below:

| | |
|----------|--|
| A-<nnn> | Is a label for each assumption in the document. Assumptions are conditions that are expected to be true during the design and implementation phases of the project. This is an assumption that was a numbered assumption in the RFP. |
| AN-<nnn> | This is an assumption that was contained in the narrative text in the RFP. |
| AP-<nnn> | This is an assumption that was added upon award. |

| | |
|----------|--|
| AR-<nnn> | This is an assumption that was identified as a new assumption for the system, during post-award meetings with the Illinois LCC. |
| C-<nnn> | Is a label for each constraint within the document. Constraints are conditions that restrict the design and implementation scope of the project. This is a constraint that was a numbered constraint in the RFP. |
| CN-<nnn> | This is a constraint that was contained in the narrative text in the RFP. |
| CP-<nnn> | This is a constraint that was added upon award. |
| CR-<nnn> | This is a constraint that was identified as a new constraint for the system, during post-award meetings with the Illinois LCC. |
| R-<nnn> | Is a label for each requirement in the document. Requirements define the functionality expected of the design and implementation. This is a requirement that was a numbered requirement in the RFP. |
| RN-<nnn> | This is a requirement that was contained in the narrative text in the RFP. |
| RX-<nnn> | This is a requirement that was added upon award. |
| RR-<nnn> | This is a requirement that was identified as a new requirement for the system, during post-award meetings with the Illinois LCC. |

Table 0-1 Notation Key

0.3 Document Language

Specific language is used in the document to denote whether a statement is informative or required. The following words have these connotations when used to describe actions or items:

| | |
|------------------------|--|
| shall | The use of the term "shall" in this document is intended to precede a required statement. Compliance with "shall" must be demonstrated during design review and system acceptance testing. |
| is, will, should | Use of the terms "is," "will," or "should" in this document is intended to identify guidance or preference. Statements annotated in this manner are to be treated as informative or preference, but not required. Statements following the words "is," "will," or "should" are not a mandatory deliverable for the final system. |

Table 0-2 Language Key